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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

CHANG, VICTOR S

ART UNIT PAPER NUMBER

1771

DATE MAILED: 05/05/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/742,654

Applicant(s)

HANNINGTON, MICHAEL

Examiner

Victor S. Chang

Art Unit

1771

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 March 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 27-29 and 32-52 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 27-29 and 32-52 is/are rejected.
- 7) ☒ Claim(s) 28 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Introduction

1. In view of the Appeal Brief filed on 3/10/2005, PROSECUTION IS HEREBY REOPENED. New grounds of rejection are set forth below.

To avoid abandonment of the application, appellant must exercise one of the following two options:

(1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply under 37 CFR 1.113 (if this Office action is final); or,

(2) initiate a new appeal by filing a notice of appeal under 37 CFR 41.31 followed by an appeal brief under 37 CFR 41.37. The previously paid notice of appeal fee and appeal brief fee can be applied to the new appeal. If, however, the appeal fees set forth in 37 CFR 41.20 have been increased since they were previously paid, then appellant must pay the difference between the increased fees and the amount previously paid. A Supervisory Patent Examiner (SPE) has approved of reopening prosecution by signing below:

2. The Examiner has carefully considered Applicant's amendments and remarks filed on 12/6/2004 and Appeal Brief dated 3/10/2005. Applicant's amendments to the title and abstract have been entered.

3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

4. Rejections not maintained are withdrawn.

Claim Objections

5. Claim 28 is objected to because of the following informalities:

The Examiner repeats (see section 4 of Office action dated 6/10/2004) that in claim 28, line 2, the recitation "30 nanometers" should be corrected as --0.3 μ --, so as to be consistent with the disclosure in the specification, paragraph [0038], in which it is disclosed that "In one embodiment, the non-adhesive later is a printing ink having a thickness from about 0.3 μ (300 nanometers) to about 100 μ . Further, it should be noted that while paragraph [0038] also discloses "The non-adhesive material may also be applied ... by means of patterned vacuum metallization or sputtering ... has a thickness from about 30 to about 3000 nanometers", these means merely deposits a coating on substrate surface, and lacks any "pushing" or "embedding" step to produce recessed "non-adhesive material forms" (i.e., inherently only *protruded or stacked* deposition or coating is produced), as such they are structurally incommensurate with claims 27-29 and 32-52, and their thickness range is irrelevant to the instantly claimed invention. In particular, it should be noted that paragraph [0054] expressly discloses the method of forming a recessed "non-adhesive forms", as shown in Fig. 4a, requires simultaneously printing and embedding. Appropriate correction is required.

Specification

6. Applicant's amendments, filed on 12/6/2004, to title and abstract are objected to because the amendment deletes relevant critical features of the instantly claimed

invention as recited in claims 27-29 and 32-52. The Examiner suggests that the original abstract is an accurate description of the instant invention, and must be reinstated.

Correction is required. See MPEP § 608.01(b).

More particular, with respect to Applicant's statement (Remarks dated 12/6/2004, page 7, second paragraph) that "The title and the abstract have been amended to reflect more accurately the claimed invention. The invention specified in claims 27-29 and 32-52 is not limited to an adhesive article which provides air egress, but rather relates to an adhesive article which provides one or more of air egress, repositionability and slideability for easy application to a substrate; see paragraphs [0008] and [0019] of Applicant's specification. The amended title and abstract take this into account.", the Examiner repeats (see Office action dated 10/5/2004, page 6, top paragraph) that while paragraphs [0008] and [0019] describe various embodiments in Figs. 1-6 of adhesive articles for providing various different functions (i.e., air egress, repositionability and slideability), the embodiment of the instant invention recited in claims 27-29 and 32-52 is an embodiment which merely provides one of the functions, i.e., air egress. In particular, it is noted that structurally the embodiment of claims 27-29 and 32-52 is directed to an adhesive article having recessed "non-adhesive material forms" relative to its outer surface of the adhesive layer, as shown in Fig. 4a, which merely provides a sole function of improved air egress, as described in paragraph [0054], nowhere in the specification is there a teaching that this embodiment provides repositionability and slideability functions, or how it provides these functions. In fact, the embodiment of claims 27-29 and 32-52 lacks necessary structural limitations, such as a well known

protruded "non-adhesive material forms" (as evidenced by the teachings of Morgan (US 3554835), Morgan shows in Fig. 4 that protruded dots are required for slideability), for preventing a contact between the adhesive outer surface and the substrate, and it is incapable of performing repositionability and slideability. As such, the Examiner asserts that the amendments to the Title and Abstract are misleading, and are incommensurate with the instant invention of claims 27-29 and 32-52. The original title and abstract should be reinstated.

7. Applicant's amendments, filed on 9/2/2004, to paragraph [0035] is also objected to because the amendment is based on an apparent error in the originally filed claim 28, which is incommensurate with the coating method of the embodiment of the instant invention as recited in claims 27-29 and 32-52. The Examiner reasserts that the original paragraph [0035] is an accurate description of the instant invention of recessed air egress path formed by printing method (see [0038] and [0054]), and must be reinstated. Correction is required. See MPEP § 608.01(b).

More particularly, in a prior Office action dated 6/10/2004, the Examiner has objected claim 28 as having an apparent error in recited thickness of the "non-adhesive material forms", because the thickness is incommensurate with the disclosure in paragraph [0035]. In stead of correcting the apparent error, however, Applicant responded by amending paragraph [0035] to include the apparent error in claim 28, and argued that the amendment is proper because claim 28 is an original claim (Remarks dated 9/2/2004, page 7, second paragraph). With respect to Applicant's argument and amendment, the Examiner repeats that while claim 28 is an original claim, its recited

thickness of 30 nanometers is an apparent error, and is clearly incommensurate with the disclosure in paragraphs [0038] and [0054], as set forth above. The original paragraph [0035] must be reinstated. Additionally, the Examiner repeats (see Office action dated 10/5/2004, page 3, bottom paragraph) that since the non-adhesive material forms are made from a curable ink of polymeric materials, paragraph [0017], it implies that at least several layers of polymers are needed to form the cured non-adhesive forms between polymer molecules, and typically each polymer molecule contains thousands of carbon atoms, whereas a thickness of 30 nanometers would unreasonably require the thickness of cured non-adhesive material forms to be in the molecular thickness range or less of a polymer molecule, i.e., it is incommensurate with the disclosure of a cured ink of polymeric materials. Finally, since the original paragraph [0035] lacks an express disclosure of the thickness of 30 nanometers can be obtained by printing method, the Examiner again urges Applicant to provide an explicit or inherent support that such a thin cured coating is physically achievable by printing an ink of polymeric material at molecular thickness range.

Claim Rejections - 35 USC § 101

8. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

9. Claims 27-29 and 32-52 are rejected under 35 U.S.C. 101 because the disclosed invention is inoperative and therefore lacks utility.

Upon a careful review, Applicant's argument "The embodiment in which the bottom surfaces of the non-adhesive material forms are above the plane of the lower surface of the adhesive layer is described in paragraph 54, page 16 of the specification. As described in the specification, the non-adhesive material forms are simultaneously printed and embedded by, for example, flexographic printing. This printing technique embeds the print into the soft surface of the adhesive. The non-adhesive material forms are pushed into the adhesive so that a channel is formed in the adhesive." (Remarks filed 12/9/2002, page 4, first full paragraph) has been carefully reconsidered, but is not persuasive. First, while Applicant has pointed out the support for a process step for forming the structure of *recessed* non-adhesive forms of claims 27-29 and 32-52 by printing, such a process would require a pressure sensitive adhesive which would deform permanently upon the simultaneous flexographic printing/pushing step, so as to fully embed the print into the soft surface of the adhesive to form a recessed print structure, the Examiner restates (see Office action dated 1/23/2003, page 4) that since known pressure sensitive adhesives are soft viscoelastic materials (i.e., not permanently deformable) which recovers its original shape upon a short contact period with a pressure, in the absence of a disclosure to explain how a permanent *recessed* structure is achieved in a soft adhesive material, the disclosure appears to be inoperable. In other words, in the absence of any examples in the specification, the process step appears to be inoperable, because the surface of known soft pressure sensitive adhesives would not be able to permanently retain a fully *recessed* structure formed during a brief contact period with a printing plate. Clarification is requested.

Claim Rejections - 35 USC § 112

10. Claim 28 is rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for the thickness of non-adhesive material forms having an average thickness of from about 0.3 μ to about 100 μ , etc. (see original paragraph [0035]), does not reasonably provide enablement for a thin coating of 30 micrometers (0.03 μ). The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention commensurate in scope with the extremely thin layer of non-adhesive material form.

In particular, the Examiner repeats, as set forth above, that Applicant appears to have been confused over different embodiments obtained by different methods in paragraph [0038] as being equivalent; and fails to appreciate that [0038] expressly discloses that the thickness limitations of different methods (printing and vacuum) are not the same. As such, in the absence of a disclosure in the specification as to how an extremely thin coating of merely 30 nanometers is reasonably enabled for a printing method to produce the instant invention, the Examiner repeats that the thickness of 30 nanometer in claim 28 is in excess of provided enablement. Appropriate correction is required.

11. Claims 27, 29 and 32-52 are rejected under 35 U.S.C. 112, first paragraph, as based on a disclosure which is not enabling. A pattern of non-adhesive material providing a path for air egress from adhesive article is critical or essential to the practice

of the invention, but not included in the claim(s) is not enabled by the disclosure. See *In re Mayhew*, 527 F.2d 1229, 188 USPQ 356 (CCPA 1976).

The Examiner repeats (see section 5 of prior Office action dated 6/10/2004) that since the instantly claimed invention is directed to “an adhesive article which provides air egress” (see original title and abstract) by forming recessed “non-adhesive material forms” which are generally present in a pattern that provides a path for air egress from the adhesive article, such as when lines are used, at least about 50% of the pattern should extend to the edge of the adhesive article to obtain acceptable air egress (see original paragraphs [0035], [0038] and [0054]). However, the aforementioned essential elements are absent from the independent claim 27, and renders the claimed invention not enabled by the disclosure.

Response to Argument

12. Applicant’s argument “Paragraph [0038] clearly discloses that non-adhesive material forms may have thicknesses as low as about 30 nanometers and as high as about 100 microns. Thus, claim 28 ... is clearly supported by paragraph [0038].” (Appeal Brief, page 4) has been carefully considered, but is not persuasive. First, the Examiner repeats that the original paragraph [0038] explicitly discloses that the thickness ranges of non-adhesive material forms obtained by printing is from 0.3 μ (300 nanometers) to about 100 μ , as set forth above. Second, the Examiner would like to remind Applicant of his own argument that “the non-adhesive material forms are simultaneously printed and embedded by, for example, flexographic printing. This

printing technique embeds the print into the soft surface of the adhesive. The non-adhesive material forms are pushed into the adhesive so that a channel is formed in the adhesive" (see Remarks filed 12/3/2002, page 4; also see paragraph [0054]), as such the embodiment of "recessed non-adhesive material forms" in claims 27-29 and 32-52 is clearly limited by methods, such as flexographic printing, which are capable of physically "pushing" the coating into the adhesive layer, and its minimum thickness is 0.3 μ , as set forth above. Third, the thickness limit of 30 nanometer by vacuum metallization or sputtering method are irrelevant to the embodiment of *recessed* "non-adhesive material forms" in claims 27-29 and 32-52, because vacuum deposition or sputtering produces a coating structure which is incommensurate with the instantly claimed embodiment, as set forth above. In summary, the Examiner respectfully repeats that Applicant appears to have been confused over different embodiments obtained by different methods in paragraph [0038] as being equivalent; and fails to appreciate that [0038] expressly discloses that the thickness limitations of different methods (printing and vacuum) are not the same. As such, the Examiner reasserts that the objection to claim 28 is proper, and correction is required.

With respect to Applicant's argument "In paragraph [0008] ... Applicant's specification states ... The articles provide one or more of air egress, repositionability and slidability ... This is consistent with paragraph [0019] which states ... The adhesive articles provides one or more of air egress, repositionability and slidability for easy application to a substrate ... The "one or more of" phrase used in paragraphs [0008] and [0019] may be satisfied by the exclusion of air egress, making air egress not only

not critical, but unnecessary.” (Remarks, page 7), the Examiner repeats that Applicant clearly ignored the fact that paragraphs [0008] and [0019] are general descriptions of various embodiments, specifically [0019] also discloses “As discussed above, the present invention relates to adhesive articles such as those used for industrial graphics ...”, which is directed to various embodiments of adhesive articles shown in Figs. 1-6, whereas the instant invention is merely an embodiment shown in Fig. 4a and 4b which lacks necessary structural limitations, such as a well known *protruded* “non-adhesive material forms” for preventing a contact between the adhesive outer surface and the substrate, i.e., the instant invention is incapable of performing repositionability and slideability, as set forth above. Finally, the Examiner repeats that nowhere in the specification is there a disclosure specifically shows that the particular embodiment of claims 27-29 and 32-52 is capable of providing repositionability and slideability functions, or how it provides these functions, Applicant’s argument to the contrary notwithstanding.

Conclusion

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Victor S. Chang whose telephone number is 571-272-1474. The examiner can normally be reached on 8:30 - 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner’s supervisor, Terrel H. Morris can be reached on 571-272-1478. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 1771

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Use
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Examiner
Art Unit 1771

4/21/2005


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